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2011

## Test 2012: Case IH Farmall 55A

Nebraska Tractor Test Laboratory

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# NEBRASKA TRACTOR TEST 2012

## CASE IH FARMALL 55A DIESEL

### 8 SPEED

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
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#### MAXIMUM POWER AND FUEL CONSUMPTION

Rated Engine Speed—(PTO speed—566 rpm)					
49.36 (36.81)	2700	3.49 (13.20)	0.498 (0.303)	14.16 (2.79)	
Standard Power Take-off Speed(540 rpm)					
48.94 (36.50)	2575	3.35 (12.70)	0.483 (0.294)	14.59 (2.87)	

#### VARYING POWER AND FUEL CONSUMPTION

49.36 (36.81)	2700	3.49 (13.20)	0.498 (0.303)	14.16 (2.79)	Air temperature
44.07 (32.86)	2837	3.21 (12.15)	0.513 (0.312)	13.73 (2.70)	
33.41 (24.92)	2864	2.63 (9.95)	0.555 (0.337)	12.71 (2.50)	Relative humidity
22.54 (16.81)	2896	2.10 (7.95)	0.657 (0.399)	10.73 (2.11)	
13.50 (10.06)	2917	1.70 (6.44)	0.888 (0.540)	7.94 (1.56)	Barometer
--	2950	1.18 (4.46)	---	---	

Maximum Torque - 115 lb.-ft. (156 Nm) at 1850 rpm

Maximum Torque rise - 19.7%

Torque rise at 2151 rpm -16%

#### TRACTOR SOUND LEVEL WITHOUT CAB

	Front Wheel Drive Engaged	Disengaged
	dB(A)	dB(A)
At no load in 4th (L4) gear	91.7	91.7
Bystander		---

#### TIRES AND WEIGHT

Rear Tires—No., size, ply & psi (kPa)

Front Tires—No., size, ply & psi (kPa)

Height of Drawbar

Static Weight with operator—Rear  
— Front  
— Total

#### Tested Without Ballast

Two 14.9-28; 6:16 (110)

Two 9.5-24; 6:16 (110)

15.5 in (395 mm)

2680 lb (1215 kg)

1880 lb (853 kg)

4560 lb (2068 kg)

**Location of tests:** Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln Nebraska 68583-0832

**Dates of tests:** December 7 to 9, 2011

**Manufacturer:** New Holland Tractors (I) Pvt Ltd Udyog Kendra, Plot No. 3 Greater Noida - 201303 U.P. India

**FUEL, OIL and TIME:** Fuel No. 2 Diesel Specific gravity converted to 60°/60° F (15°/15°C) 0.8463 Fuel weight 7.047 lbs/gal (0.845 kg/l) Oil SAE 15W40 API service classification CI-4 Transmission and hydraulic lubricant Case Akcela Hy-Tran Ultra fluid Front axle lubricant Case Akcela Hy-Tran Ultra fluid Total time engine was operated 16.5 hours

**ENGINE:** Make ISM Diesel Type four cylinder vertical with turbocharger Serial No. 80688 Crankshaft lengthwise Rated engine speed 2700 Bore and stroke 3.307" x 3.937" (84.0 mm x 100.0 mm) Compression ratio 23.4 to 1 Displacement 135 cu in (2216 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements Oil filter one full flow cartridge Fuel filter one paper element Muffler underhood Exhaust horizontal Cooling medium temperature control one thermostat

**ENGINE OPERATING PARAMETERS:** Fuel rate: 23.4 - 25.1 lb/h (10.6 - 11.4 kg/h) High idle: 2900 - 2950 rpm Turbo boost: nominal 7.3 - 9.4 psi (50 - 65 kPa) as measured 8.4 psi (58 kPa)

**CHASSIS:** Type front wheel assist Serial No. 7139515 Tread width rear 56.5" (1435 mm) to 72.5" (1841 mm) front 57.1" (1450 mm) to 72.6" (1845 mm) Wheelbase 87.0" (1962 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio Nominal travel speeds mph (km/h) first 1.72 (2.76) second 2.58 (4.16) third 3.82 (6.14) fourth 5.25 (8.45) fifth 6.72 (10.82) sixth 10.13 (16.30) seventh 14.95 (24.06) eighth 20.57 (33.10) reverse 2.44 (2.92), 2.73 (4.40), 4.03 (6.49), 5.55 (8.93), 7.10 (11.43), 10.70 (17.22), 15.80 (25.42), 21.73 (34.97) Clutch single dry disc operated by foot pedal Brakes single wet disc operated by two foot pedals which can be locked together Steering hydrostatic Power take-off 540 rpm at 2576 engine rpm Unladen tractor mass 4385 lb (1989 kg)

## HYDRAULIC PERFORMANCE

CATEGORY: II

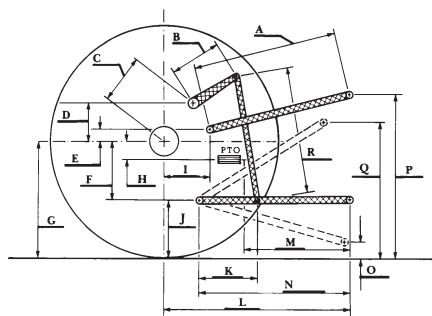
Quick Attach: None

OECD Static test

Maximum force exerted through whole range:	2429 lbs	(10.8 kN)(at frame)
	2942 lbs	(13.1 kN)(at link ends)
i) Sustained pressure of the open relief valve:	2419 psi	(167 bar)
ii) Pump delivery rate at minimum pressure and rated engine speed:	11.3 GPM	(42.6 l/min)
iii) Pump delivery rate at maximum		
hydraulic power:	10.9 GPM	(41.1 l/min)
Delivery pressure:	2301 psi	(159 bar)
Power:	14.6 HP	(10.9 kW)

### HITCH DIMENSIONS AS TESTED - NO LOAD

	inch	mm
A	26.0	660
B	9.1	230
C	12.0	306
D	12.0	305
E	14.2	360
F	4.7	120
G	26.4	670
H	3.5	88
I	8.4	214
J	21.7	550
K	12.6	320
L	34.8	885
M	21.7	552
N	30.1	765
O	8.0	203
P	45.7	1160
Q	34.8	885
R	20.2	514



**REPAIRS AND ADJUSTMENTS:** It was necessary to block the throttle lever to maintain high idle engine rpm settings.

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. This tractor did not meet the manufacturer's claims of 11.6 GPM (44 lpm) hydraulic flow nor 3 point lift claims of 3153 lbs (1430 kg) at ball ends or 2580 lbs (1170 kg) at 24" (610 mm) behind link ends. For the maximum power tests, the fuel temperature at the primary filter was maintained at 103°F (40°C).

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **2012**, January 18, 2012.

Roger M. Hoy  
Director

M.F. Kocher  
D.R. Keshwani  
P.J. Jasa  
Board of Tractor Test Engineers



Case IH Farmall 55A Diesel

Institute of Agriculture and Natural Resources  
University of Nebraska-Lincoln